

CALIFORNIA COASTAL COMMISSION

CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
(831) 427-4863

W11.5a



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Coastal Development Permit Application

Application number3-05-058, Watkins Seawall Repair

Applicant.....William and Denise Watkins

Project locationUpcoast end of Las Olas Drive (797 Las Olas) adjacent to Borregas Creek and Potbelly Beach (between New Brighton State Beach and Seacliff State Beach) in the unincorporated Aptos-Seacliff area of south Santa Cruz County.

Project descriptionRepair existing bulkhead seawall at the base of an existing residence.

File documents.....Santa Cruz County certified Local Coastal Program (LCP); California Coastal Commission coastal development permit (CDP) files 3-04-053-W and 3-04-062-W (Watkins); California Coastal Commission Monterey Bay ReCAP.

Staff recommendation ...Approval with Conditions

Summary: The Applicants propose to repair an existing bulkhead seawall that is located under and at the base of the Applicants' residence on the sandy beach adjacent to Potbelly Beach. The existing seawall is made up of a series of I-beams set in concrete piers between which is lodged timber lagging extending from the top of the wall down approximately 12 feet. The seawall acts as a retaining wall of sorts for the material inland of it, and it is partially covered by the existing house (which itself extends out onto the beach on a series of piers). The repair consists of welding a portion of another I-beam to each existing I-beam and installing a concrete facing to that through which helical anchors would be drilled. The concrete repair area would extend as far down as the current lagging, and its surface would be designed to mimic the bluffs in the immediate area. Most of the repair area is underneath the existing house.

This project is similar to other armoring repair/maintenance applications that the Commission has reviewed in the Santa Cruz County area in the past several years. Staff recommends approval subject to the types of conditions generally applied by the Commission in these past cases that are designed to offset coastal resource impacts while providing for long-term permitted maintenance. The recommended conditions of approval include provisions for: maintenance to take place on an as needed basis, subject to construction and restoration criteria; no further seaward encroachment in relation to the approved profile; long-term monitoring; concrete specifications to ensure the surfacing mimics natural landforms to the degree possible; native landscaping designed to cascade over the topmost portion of the seawall and the Applicant's privacy wall for additional camouflaging; and assumption of risk by the property owners. As so conditioned, Staff recommends approval.



California Coastal Commission

November Meeting in Los Angeles

Staff: D. Carl Approved by:

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I. Staff Recommendation on CDP Application

Staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development subject to the standard and special conditions below.

Motion. I move that the Commission approve Coastal Development Permit Number 3-05-058 pursuant to the staff recommendation.

Staff Recommendation of Approval. Staff recommends a **YES** vote. Passage of this motion will result in approval of the coastal development permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Approve a Coastal Development Permit. The Commission hereby approves the coastal development permit on the grounds that the development as conditioned, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the coastal development permit complies with the California Environmental Quality Act because either: (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment; or (2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the development on the environment.

II. Conditions of Approval



A. Standard Conditions

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

B. Special Conditions

1. **Approved Project.** The approved project is a repair to the bulkhead seawall at 797 Las Olas Drive (APN 038-461-01) as shown in the project plans (*Watkins Seawall Repair*, 2 sheets, by Ifland Engineers dated September 29, 2004), and as modified by the following:
 - (a) **Concrete Surfacing.** All concrete surfaces that are located on the seaward and/or beachward side of the seawall shall be faced with a sculpted concrete surface that mimics natural undulating bluff landforms in the vicinity in terms of integral mottled color, texture, and undulation. Any protruding concrete elements (e.g., corners, edges, covered I-beams, etc.) shall be contoured in a non-linear manner designed to evoke natural bluff undulations.
 - (b) **Drainage.** All drainage within the sculpted concrete shall be camouflaged (e.g., randomly spaced, hidden with overhanging or otherwise protruding sculpted concrete, etc.) so as to be hidden from view and/or inconspicuous as seen from the beach.
 - (c) **Privacy Wall and Landscaping.** The privacy wall that is located directly above portions of the seawall (i.e., those portions not underneath the residence) may be moved inland or may be kept in the same location. If the privacy wall is moved inland, the area between the privacy wall and the top of the seawall shall be vegetated with non-invasive native bluff species capable of trailing vegetation (e.g., Carmel creeper, *Ceanothus griseus* var. *horizontalis*) down over at least the upper six feet of the seawall, and capable of screening at least the bottom three feet of the



privacy wall. If the privacy wall is not moved inland, planter boxes or equivalent shall be attached to the privacy wall, and similar non-invasive native bluff species capable of trailing vegetation shall be planted in the planter boxes to help screen the privacy wall and the upper six feet of the seawall as seen from the beach and Monterey Bay. All plants shall be replaced as necessary to maintain the required dense cascading screen of vegetation over the life of the project.

All requirements of this condition above shall be enforceable components of this coastal development permit. The Permittee shall undertake development in accordance with the approved project parameters. Any proposed changes to the approved project parameters shall be reported to the Executive Director. No changes to the approved project parameters shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

2. Construction Plan. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit a Construction Plan (in full-size and 11" x 17" formats with a graphic scale (two sets of each)) to the Executive Director for review and approval. The Construction Plan shall, at a minimum, include the following:

- (a) Construction Areas.** The Construction Plan shall identify the specific location of all construction areas, all staging areas, all storage areas, all construction access corridors (to the construction sites and staging areas), and all public access corridors in site plan view. All such areas within which construction activities and/or staging are to take place shall be minimized to the maximum extent feasible in order to minimize construction encroachment on the beach area located seaward and/or beachward of the seawall perimeter, Monterey Bay, and all shoreline access points, and to have the least impact on public access. Unobtrusive fencing (or equivalent) shall be provided to enclose the construction area in a closed polygon (as seen in site plan view).
- (b) Construction Methods and Timing.** The Construction Plan shall specify the construction methods to be used, including all methods to be used to keep the construction areas separated from Monterey Bay waters and public recreational use areas (including using Las Olas Drive and the Permittee's property inland of the seawall for staging, storage, and construction activities to the maximum extent feasible). All erosion control/water quality best management practices to be implemented during construction and their location shall be noted.
- (c) Property Owner Consent.** The Construction Plan shall be submitted with evidence indicating that the owners of any properties on which construction activities are to take place, including any properties to be crossed in accessing the site, consent to the use of their properties in these manners.
- (d) Construction Coordinator.** The Construction Plan shall identify a designated construction coordinator to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and in emergencies). The coordinator's contact information (i.e., address, phone numbers, etc.) including, at a minimum, a telephone number that will be



made available 24 hours a day for the duration of construction, shall be provided. The Construction Plan shall require that the construction coordinator record the name, phone number, and nature of all complaints received regarding the construction, and that the construction coordinator investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry.

(e) **Construction Requirements.** The Construction Plan shall, at a minimum, include the following construction requirements specified via written notes on the Plan. Minor adjustments to the following construction requirements may be allowed by the Executive Director if such adjustments: (1) are deemed necessary due to extenuating circumstances; and (2) will not adversely impact coastal resources.

- All work shall take place during daylight hours; lighting of the beach and Monterey Bay waters is prohibited.
- All construction activities shall take place inland of Monterey Bay waters and the intertidal area (i.e., the beach area between high and low tides); contact with Monterey Bay waters and/or intertidal areas is prohibited.
- Only rubber-tired construction vehicles are allowed on the beach, except track vehicles may be used if the Executive Director agrees that they are required to safely carry out construction. When transiting on the beach, all such vehicles shall remain as high on the upper beach as possible and avoid contact with ocean waters and intertidal areas.
- All construction materials and equipment placed on the beach area located seaward and/or beachward of the seawall perimeter during daylight construction hours shall be stored beyond the reach of tidal waters. All construction materials and equipment shall be removed in their entirety from the beach area located seaward and/or beachward of the seawall perimeter by sunset on each day that work occurs. The only exceptions shall be for erosion and sediment controls (e.g., a silt fence at the base of the wall) as necessary to contain sediments at the site, where such controls are placed as close to the toe of the seawall as possible, and are minimized in their extent.
- Particular care shall be exercised to prevent foreign materials (e.g., construction scraps, concrete, concrete rinsate, etc.) from getting onto the beach area located seaward and/or beachward of the seawall perimeter and/or into Monterey Bay waters; all such materials shall be immediately contained and properly disposed of off of the beach.
- Construction (including but not limited to construction activities, and materials and/or equipment storage) is prohibited outside of the defined construction, staging, and storage areas.
- No work shall occur on the beach area located seaward and/or beachward of the seawall perimeter between Memorial Day and the Saturday before Labor Day (inclusive), or during



weekends or holidays.

- Equipment washing, refueling, and/or servicing shall not take place on the beach.
- The construction site shall maintain good construction site housekeeping controls and procedures (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain (including covering exposed piles of soil and wastes); dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the beach).
- All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day. At a minimum, silt fences and/or equivalent apparatus shall be installed at the perimeter of the construction site to prevent construction-related runoff and/or sediment from entering into the Monterey Bay.
- All beach areas located seaward and/or beachward of the seawall perimeter and all shoreline access points impacted by construction activities shall be restored to their pre-construction condition or better within three days of completion of construction. Any temporary construction beach access ramps shall be removed. Any beach sand in the area located seaward and/or beachward of the seawall perimeter that is impacted by construction shall be filtered as necessary to remove all construction debris.
- All contractors shall insure that work crews are carefully briefed on the importance of observing the construction precautions given the sensitive work environment. Construction contracts shall contain appropriate penalty provisions sufficient to offset the cost of retrieval/clean up of foreign materials not properly contained.
- The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least 3 working days in advance of commencement of construction, and immediately upon completion of construction and required beach-area restoration activities. If planning staff should identify additional reasonable measures necessary to restore the beach and beach access points, such measures shall be implemented immediately.

All requirements of this condition above shall be enforceable components of this coastal development permit. The Permittee shall undertake construction in accordance with the approved Construction Plan. Any proposed changes to the approved Construction Plan shall be reported to the Executive Director. No changes to the approved Construction Plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

- 3. Construction Site Documents.** DURING ALL CONSTRUCTION, copies of each of the following shall be maintained in a conspicuous location at the construction job site at all times (where such copies shall be available for public review) and all persons involved with the construction shall be briefed on the content and meaning of each prior to commencement of construction: (a) the signed



coastal development permit; (b) the approved project parameters (see special condition 1); and (c) the approved construction plan (see special condition 2). In addition, the designated construction coordinator's contact information (including their address and 24-hour phone number at a minimum) shall be conspicuously posted at the job site where such contact information is readily visible from public viewing areas, along with indication that the construction coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies).

- 4. As-Built Plans.** WITHIN SIX-MONTHS OF COMPLETION OF CONSTRUCTION, As-Built Plans (in full-size and 11" x 17" formats with a graphic scale (two sets of each)) shall be submitted to the Executive Director for review and approval. The As-Built Plans shall clearly identify in site plan and cross-section: all seawall and planter box development; all property lines; and all residential development in relation to the seawall structure. The As-Built Plans shall include color photographs (in hard copy and jpg format) that clearly show the as-built project, and that shall be accompanied by a site plan that notes the location of each photographic viewpoint and the date and time of each photograph. At a minimum, the photographs shall be from upcoast, seaward, and downcoast viewpoints, and from a sufficient number of beach viewpoints as to provide complete photographic coverage of the seawall and residence at a scale that allows comparisons to be made with the naked eye between photographs taken in different years and from the same vantage points. The As-Built Plans shall be submitted with certification by a licensed civil engineer with experience in coastal structures and processes, acceptable to the Executive Director, verifying that the project has been constructed in conformance with the approved project parameters described by special condition 1 above.
- 5. Monitoring and Reporting.** The condition and performance of the as-built project shall be regularly monitored by a licensed civil engineer with experience in coastal structures and processes. Such monitoring evaluation shall at a minimum address whether any significant weathering or damage has occurred that may adversely impact performance, or that may reduce the effectiveness of the camouflaging treatment applied (i.e., the sculpted concrete and/or vegetation). Monitoring reports prepared by a licensed civil engineer with experience in coastal structures and processes, and covering the above-described evaluations, shall be submitted to the Executive Director of the Coastal Commission for review and approval at five year intervals by May 1st of each fifth year (with the first report due May 1, 2011, and subsequent reports due May 1, 2016, May 1, 2021, and so on) for as long as the project exists at this location. The reports shall identify any recommended actions necessary to maintain the approved project in a structurally sound manner and its approved as-built state, and shall include photographs taken from each of the same vantage points as provided in the as-built plans (see special condition 4) with the date and time of the photographs and the location of each photographic viewpoint noted on a site plan.
- 6. Future Maintenance Authorized.** This coastal development permit authorizes future maintenance subject to the following:

 - (a) Maintenance.** "Maintenance," as it is understood in this special condition, means development that would otherwise require a coastal development permit whose purpose is to repair, reface,



and/or otherwise maintain the approved seawall structure in its approved configuration.

- (b) Maintenance Parameters.** Maintenance shall only be allowed subject to the approved construction plan required by special condition 2. Any proposed modifications to the approved construction plan associated with any maintenance event shall be identified in the maintenance notification (described below), and such changes shall require a coastal development permit amendment unless the Executive Director deems the proposed modifications to be minor in nature (i.e., the modifications would not result in additional coastal resource impacts).
- (c) Construction Coordinator.** A construction coordinator shall be identified, and their contact information (i.e., address, phone numbers, etc.) including, at a minimum, a telephone number that will be made available 24 hours a day for the duration of construction, shall be provided with the maintenance notification (described below).
- (d) Other Agency Approvals.** These maintenance stipulations do not obviate the need to obtain permits from other agencies for any future maintenance and/or repair episodes.
- (e) Maintenance Notification.** At least two weeks prior to commencing any maintenance event, the Permittee shall notify, in writing, planning staff of the Coastal Commission's Central Coast District Office. The notification shall include a detailed description of the maintenance event proposed, and shall include any plans, engineering and/or geology reports, proposed changes to the maintenance parameters, other agency authorizations, and other supporting documentation describing the maintenance event. The maintenance event shall not commence until the Permittee has been informed by planning staff of the Coastal Commission's Central Coast District Office that the maintenance event complies with this coastal development permit. If the Permittee has not received a response within 30 days of submitting the notification, the maintenance event shall be authorized as if planning staff affirmatively indicated that the event complies with this coastal development permit. The notification shall clearly indicate that the maintenance event is proposed pursuant to this coastal development permit, and that the lack of a response to the notification within 30 days constitutes approval of it as specified in the permit.
- (f) Maintenance Coordination.** Maintenance events shall, to the degree feasible, be coordinated with other maintenance events proposed in the immediate vicinity with the goal being to limit coastal resource impacts, including the length of time that construction occurs in and around the beach area, Monterey Bay area, and shoreline access points. As such, reasonable efforts shall be made to coordinate maintenance events with other adjacent events, including adjusting maintenance event scheduling as directed by planning staff of the Coastal Commission's Central Coast District Office.
- (g) Non-compliance Proviso.** If the Permittee is not in compliance with the conditions of this permit at the time that a maintenance event is proposed, then the maintenance event that might otherwise be allowed by the terms of this future maintenance condition shall not be allowed by this condition until the Permittee is in full compliance with this permit.



(h) Emergency. Nothing in this condition shall serve to waive any Permittee rights that may exist in cases of emergency pursuant to Coastal Act Section 30611, Coastal Act Section 30624, and Subchapter 4 of Chapter 5 of Title 14, Division 5.5, of the California Code of Regulations (Permits for Approval of Emergency Work).

(i) Duration of Covered Maintenance. Future maintenance under this coastal development permit is allowed subject to the above terms for five (5) years from the date of approval (i.e., until November 16, 2010). Maintenance can be carried out beyond the 5-year period if the Permittee requests an extension prior to November 16, 2010 and the Executive Director extends the maintenance term. The intent of the permit is to regularly allow for 5-year extensions of the maintenance term unless there are changed circumstances that may affect the consistency of the development with the policies of Chapter 3 of the Coastal Act and thus warrant a re-review of the permit.

7. Shoreline Development Stipulations. By acceptance of this permit, the Permittees acknowledge and agree to, on behalf of themselves and all successors and assigns, the following:

(a) Maintenance Required. It is the Permittees' responsibility: (1) to maintain the approved project in a structurally sound manner and its approved state; (2) to repair any damage to the camouflaging treatment applied (i.e., the sculpted concrete and/or planter box system and vegetation screen) as soon as is feasibly possible; and (3) to immediately remove all debris that may fall from the residential area inland of the seawall onto the seawall, beach, or Monterey Bay.

(b) Native Non-Invasive Plant Species Only. Non-native and/or invasive plant species shall be prohibited in the planter boxes atop the seawall and/or seaward of the privacy wall.

(c) No Further Seaward Encroachment. Any future development, as defined in Section 30106 ("Development") of the Coastal Act, including but not limited to modifications to the seawall, shall be constructed inland of, and shall be prohibited seaward of, the seaward and/or beachward plane of the approved seawall with the following development excepted from this prohibition: (1) appropriately permitted construction activities associated with construction, maintenance, and/or repair of the project approved by this coastal development permit; and (2) standard shoreline access maintenance activities.

(d) Assumption of Risk, Waiver of Liability and Indemnity Agreement. The Permittees acknowledge and agree, on behalf of themselves and all successors and assigns: (1) that the site is subject to extreme coastal hazards including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storms, landsliding, and coastal flooding; (2) to assume the risks to the Permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (3) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (4) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the



Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (5) that any adverse effects to property caused by the permitted project shall be fully the responsibility of the landowner.

(e) **Future Shoreline Planning.** The Permittees agree, on behalf of themselves and all successors and assigns, to participate in future shoreline armoring planning efforts that involve the seawall approved pursuant to this coastal development permit. Such planning efforts may involve consideration of a shoreline armoring management entity meant to cover the larger shoreline that includes the seawall, and may involve consideration of potential modifications and/or programs designed to reduce public viewshed and shoreline access impacts due to shoreline armoring. Agreeing to participate in no way binds the Permittees (nor any successors and assigns) to any particular outcome of such planning efforts or to any financial commitment; and in no way limits his/her ability to express his/her viewpoint during the course of such planning efforts.

(f) **Use of the Beach.** The Permittees agree, on behalf of themselves and all successors and assigns, not to interfere with or otherwise discourage public use of the sandy beach.

8. **Public Rights.** The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights which may exist on the property. The Permittees shall not use this permit as evidence of a waiver of any public rights which may exist on the property.

9. **MBNMS Review.** PRIOR TO CONSTRUCTION, written evidence shall be submitted to the Executive Director for review and approval demonstrating that all necessary permits, permissions, approvals, and/or authorizations for the project have been granted by the Monterey Bay National Marine Sanctuary. Any changes to the project required by the Sanctuary shall be reported to the Executive Director. No such changes to the project shall occur without Coastal Commission authorization unless the Executive Director determines that no additional authorization is necessary for such changes.

10. **Deed Restriction.** WITHIN SIXTY DAYS OF ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the Executive Director for review and approval documentation demonstrating that the Permittee has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the special conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the property. The deed restriction shall include a legal description and site plan of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes,



or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

III. Findings and Declarations

The Commission finds and declares as follows:

A. Project Location

The project is located at the extreme upcoast end of Las Olas Drive adjacent to Borregas Creek near Potbelly Beach between Seacliff State Beach (downcoast) and New Brighton State beach (upcoast). Las Olas Drive can only be accessed by traversing through Seacliff State Beach, and is a private gated road running along the base of the coastal bluff with 29 homes located along its seaward side. Las Olas dead-ends at Borregas Creek at its upcoast end at the project site. Although development such as this (essentially on the beach at the base of the coastal bluffs) is generally an anomaly along the California coast, the development at Las Olas is not atypical for this particular stretch of Santa Cruz County shoreline inasmuch as there exist similar exclusive subdivisions immediately upcoast (at Potbelly Beach) and downcoast (along Beach Drive and at Via Gaviota) of Seacliff State Beach. All of these developments are pre-Coastal Act and have maintained their precarious location in part at least due to shoreline armoring, such as the subject seawall, and the revetment that fronts the majority of the other homes at Las Olas.

The beach area fronting the site is part of a roughly 15 mile unbroken stretch of beach extending from New Brighton State Beach to the Pajaro River, and including six State Park units.¹ The Monterey Bay National Marine Sanctuary, the largest of twelve such federally protected sanctuaries nationwide, is directly offshore.

See exhibit A for a location map and photos of the project area.

B. Project Description

The Applicants' propose to repair an existing approved bulkhead seawall that is located under and at the base of the Applicants' residence on the sandy beach adjacent to Potbelly Beach.² In addition to the anomaly of the Las Olas subdivision itself, the existing single-family home is also unusual for Santa Cruz County inasmuch as the majority of the structure is elevated above the sandy beach on large piers with a series of cantilevered decks accentuating its mass in the beach viewshed. Although there are other homes that share this construction style in the County (i.e., living space elevated on deep piers), there

¹ New Brighton, Seacliff, Manresa, Sunset, Palm, and Zmudowski State Beaches.

² Santa Cruz County coastal permit 91-0315 in 1991.



are no others that can match the sheer bulk elevated over the beach in this case.³

The existing bulkhead seawall to be repaired is located partially underneath the existing elevated residence, and partially on either side of it, extending back into the bluff at the upcoast end and extending imperceptibly into the bulkhead seawall that fronts the adjacent property owners residence and property. There is a roughly 5-foot tall privacy wall on top of the seawall on either side of the residence itself. The bulkhead seawall acts as a retaining wall of sorts for the material inland of it, and it is partially covered by the existing house (which itself extends out onto the beach on a series of piers). The bulkhead seawall extends from a depth of about -12 NGVD and up to a height of about +18 NGVD (with the concrete piers themselves extending up to +6 NGVD), and it includes wood lagging between the I beams extending from +6 up to +18 NGVD (see exhibit B). The proposed repair consists of welding a portion of another I-beam to each existing I-beam above +6 NGVD and installing a concrete facing (also above +6 NGVD) through which helical anchors would be drilled. Thus, the concrete repair area would extend as far down as the current lagging. The surface of the concrete would be manipulated to mimic the bluffs in the immediate area. Most of the repair area is underneath the existing house.

See project plans in exhibit B.

C. Coastal Development Permit Determination

1. Applicable Policies

Public Access, Recreation, and Views

Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation. This includes protecting public visual access. In particular:

30210. *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

30211. *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

30213. *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. ...*

30220. *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

³ The Applicant recently obtained Commission authorization for exterior remodeling including a complete re-sheathing of the exterior to help the structure better blend into the beach aesthetic and to improve the public viewshed (3-04-053-W and 3-04-062-W); these projects also included removal of rip-rap at the site. The Applicant is currently in the middle of that construction.



30221. *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

30223. *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

Coastal Act Section 30240(b) also protects parks and recreation areas such as the beach and offshore area seaward of the site. Section 30240(b) states:

30240(b). *Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Coastal Act Section 30251 details specific public viewshed protections. Section 30251 states:

30251. *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

Finally, Section 30253 protects special recreational destination points such as the beach fronting the site. Section 30253 states, in part:

30253(5). *New development shall: where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.*

Shoreline protective devices
Section 30235 of the Coastal Act:

30235. *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.*



Long term stability

Section 30253 of the Coastal Act also addresses the need to ensure long-term structural integrity, minimize future risk, and avoid additional, more substantial protective measures in the future:

30253. New development shall:

- (1) *Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (2) *Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. ...*

Policy Summary

In sum, although the maintenance and repair of existing permitted shoreline protective structures is meant to assure stability and structural integrity pursuant to the Act, Coastal Act policies protecting the adjacent recreational beach, the offshore recreational area, the beach area viewshed, and the overall shoreline visitor experience must be respected in that process.

2. Consistency Analysis

The beach area at the project site has been negatively impacted over time by the presence of the cantilevered residence, the bulkhead seawall, and the privacy wall at this site, particularly when considered in relation to the ¼ mile long rock revetment fronting adjacent Las Olas homes, as well as the cumulative impact from this seawall and revetment when considered in the context of the armoring fronting surrounding areas.⁴ These negative impacts include the unnatural back beach character defined by the residential development and seawall, the loss of beach area given over to the piers and/or shaded by the residence, the fixing of the back beach and its relation to overall loss of beach in the long term as the shoreline continues to erode and the sea level continues to rise over time. The beach recreational area here, including the larger beach recreational area stretching from New Brighton through Seacliff State Beaches), is one of the most popular for visitors in all of unincorporated Santa Cruz County. At the time of LCP certification, beach use at this larger beach area was estimated well in excess of one million persons per year.⁵ More recently, State Parks estimates visitor usage at Seacliff State Beach alone at between one and one-and-a-half million persons annually.⁶ The Monterey Bay National Marine Sanctuary is located directly offshore. It is within this context, and in light of the Coastal Act parameters

⁴ Including armoring fronting State Park development at both upcoast New Brighton State Beach and downcoast Seacliff State Beach, as well as private armoring fronting Potbelly Beach homes and the further downcoast Beach Drive and Via Gaviota residential developments.

⁵ Background LCP reports completed in 1980 estimated annual visitor counts for this beach segment at 1,060,868 (1980 Public Access Working Paper for the County LCP). At that time, these annual use estimates were second only to the Twin Lakes State Beach unit in the Live Oak beach area of the County. Given the doubling of the County's population since 1970, and the increase in recreational use associated with that and population increases in surrounding areas, these historic figures likely undercount the current level of use at this location.

⁶ This figure accounts for visitors entering through Seacliff. However, as indicated, the beach is essentially continuous and there are multiple entry points, State Park and otherwise, and thus this figure underestimates overall beach usage.



established because of it, that individual projects must be understood and evaluated for their effect on the recreational beach experience.

In this case, although the proposed project will not significantly alter the existing bulkhead seawall, such a project raises Coastal Act issues because: recreational beach area will be impacted for the duration of construction; failure of the seawall could adversely affect recreational resources; and future erosion response could lead to more substantive hard armoring in the future.⁷ Fortunately, these issues can be readily rectified to ensure Coastal Act consistency as follows:

A. Construction Issues

The project will: require the movement of large equipment, workers, and supplies through the State Park to gain access to the site; include large equipment operations on the recreational beach area fronting the site; include substantial concrete and other work on the beach; result in the loss of recreational beach area to a construction zone (at the immediate project area); potentially encroach on Sanctuary waters (depending on tides); and generally intrude and negatively impact the aesthetics, ambiance, serenity, and safety of the recreation beach experience. These impacts can be contained through construction parameters that limit the area of construction, limit the times when work can take place (to avoid both weekends and peak summer use months when recreational use is highest), clearly fence off the minimum construction area necessary, keep equipment out of Sanctuary waters, require off-beach equipment and material storage during non-construction times, require construction documents to be kept at the site for inspection, require a construction coordinator to be available to respond to inquiries, and clearly delineate and avoid to the maximum extent feasible beach use areas (see special conditions 2 and 3).

Even with these containment provisions, however, the public will bear the burden of the negative construction impacts associated with construction on this very popular beach. Although the beach area can and must be restored to their original configuration immediately following construction to limit these impacts (see special condition 2), the other temporary construction impacts (the loss of beach space, and the degradation of beach recreational experience and viewshed), require some form of compensatory mitigation. Unfortunately, there doesn't currently exist a formal program in this area for addressing such impacts in a systematic way (e.g., an in-lieu fee to be applied to beach access enhancements in the area). That said, there are other project impacts for which direct mitigation is required (see below). When the impacts are considered together, an appropriate roughly proportional mitigation can be applied (see requirements below).

⁷ The project also raises issues regarding the long term loss of beach due to armoring at this location (due to the fact that the seawall has fixed the back beach on an actively eroding shoreline, and that beach area will be lost as the shoreline continues to erode and the sea level continues to rise over time). However, the shoreline at this location was "fixed" prior to the coastal permitting requirements of Proposition 20 and the Coastal Act in the early 1970s. The current seawall configuration has subsequently been permitted by the County (in 1991). As a result, while the issue of passive erosion is still relevant here, its relation to the proposed repair project before the Commission in this application is more one of background context. Although clearly relevant, and important to understand, fixing the back beach and its relation to the long-term loss of beach due to passive erosion is not clearly an impact of this project for which a sufficient nexus is present to address this impact.



B. Viewshed Issues

The Applicant proposes to manipulate the proposed concrete facing to mimic natural bluff forms in color and texture. The Commission is well aware of such concrete measures, and is equally aware that such measures when done well can help decrease viewshed impacts, but when done poorly can actually accentuate such impacts. At a minimum, the concrete work needs to clearly be designed to mimic natural undulating bluff landforms in the vicinity in terms of integral mottled color, texture, and undulation, and any protruding concrete elements (e.g., corners, edges, covered I-beams, etc.) need to be contoured in a non-linear manner designed to evoke natural bluff undulations (see special condition 1).

As with overall construction impacts, although these concrete provisions can minimize viewshed impacts, they cannot be completely avoided. A linear concrete wall, even artfully done, simply cannot entirely replicate an actual bluff. In addition, the surfaced concrete in this case will extend down to +6 NGVD. Although it should be partially covered in sand during all but extreme scour events, the piers will become visible when the beach is scoured below that level, further degrading the viewshed at those times. Fortunately, the site presents some straight-forward opportunities for mitigating such impacts over the long term. Specifically, the cantilevered house is surrounded by a roughly 5-foot tall privacy wall on either side of it (as viewed from the beach and the Bay). This wall is located directly atop the bulkhead seawall and thus serves to emphasize the seawall in that view.⁸ If the perceived massing of the large expanse of wall at the seawall could be reduced, and the seawall itself could be further camouflaged, the identified construction and viewshed impacts could be mitigated.

Therefore, in order to mitigate for both the construction impacts described above and the long-term viewshed impacts, the privacy wall and the seawall shall be landscaped with non-invasive native bluff species capable of trailing vegetation (e.g., Carmel creeper, *Ceanothus griseus* var. *horizontalis*) (see special condition 1). As a permutation, if the privacy wall were moved back inland away from the seawall, it would further decrease the perceived massing of the wall/seawall in the public viewshed. Accordingly, this approval allows for such movement as an option. See special condition 1.

C. Long-Term Stability and Maintenance Issues

If this seawall was damaged in the future (e.g. as a result of wave action, storms, landsliding, etc.) it could threaten the stability of the residential site, which could lead to the need for more bluff alteration and/or additional or more substantive armoring. In addition, any seawall elements that come free from the structure (e.g., concrete spalling) would adversely affect beach recreational use. The bulkhead seawall proposed to be repaired in this case is consistent with the general practice for such structures along Santa Cruz County's shoreline (including this stretch of coast in particular). Thus, there is little to indicate that this seawall will require such augmentation, or that it will pose undue stability problems at this site. Even so, its long-term stability is dependent upon equally long-term monitoring and maintenance to ensure that it continues to function as intended with a minimum of stability problems, and with a minimum of repair necessary during emergency situations. The same is the case for the required landscape screening. To ensure this, the seawall must be monitored regularly by engineers with

⁸ This wall is to be sheathed in shingles as part of the current construction project.



experience in coastal structures and processes, and must be maintained in a structurally sound manner and its approved state, including maintenance of the landscape screening (see special conditions 1, 5, 6, and 7). To ensure that maintenance does not result in any further seaward encroachment of the revetment into the beach area, development (including maintenance per this permit and any other future development) is prohibited seaward of the existing permitted footprint and profile (see special condition 7).⁹ To ensure the Commission is kept informed of the status of the project, detailed monitoring and maintenance reports must be submitted every five years (see special condition 5). For clarity in permit implementation and monitoring, and to avoid undue interpretation, future monitoring and maintenance activities must be understood in relation to clear as-built plans (including photographs) (see special conditions 1, 4, and 5). Future maintenance events are allowed consistent with all other requirements of this approval for a five-year period, and this five-year period can be extended as long as there aren't any changed circumstances that may affect the consistency of the development with the policies of Chapter 3 of the Coastal Act and thus warrant a re-review of the permit (see special condition 6).

D. Long-Term Risk Issues

There is a certain amount of risk in maintaining development along a California coastline that is actively eroding and can be directly subject to violent storms, large waves, flooding, earthquakes, and other hazards. The subject site is located within a dynamic and sometimes hazardous shoreline environment. This environment shows no signs of becoming less hazardous. On the contrary, increased wave heights and wave energy are expected over time due to global warming and sea level rise.¹⁰ For example, along much of the California coast, the bottom depth controls the nearshore wave heights, with bigger waves occurring in deeper water. Since wave energy increases with the square of the wave height, a small increase in water depth and wave height can cause a significant increase in wave energy and wave damage. So, combined with the physical increase in water elevation, a small rise in sea level can expose previously protected back shore development to both inundation and wave attack, and those areas that are already exposed to wave attack will be exposed to more frequent wave attack with higher wave forces. Structures that are adequate for current storm conditions may not provide as much protection in

⁹ Note that "seaward" in the case means both seaward and beachward because the bulkhead seawall wraps around the end of Las Olas at this location and back inland slightly. Thus, a portion of the area in which expansion would be prohibited is actually upcoast, and not technically seaward (although the implication is the same).

¹⁰ There is a growing body of evidence that there has been a slight increase in global temperature and that an acceleration in the rate of sea level can be expected to accompany this increase in temperature. According to the *Third Assessment Report - Climate Change 2001*, by the International Panel on Climate Change (IPCC) global sea level is predicted to rise by 0.09 to 0.88 meters (0.3 to 2.88 feet) from the 1990 level by 2100, with significant regional variability. Monterey Bay was not included in the estimates of sea level rise through the year 2100. The closest tidal stations with an adequate record to use for a 100-year projection were San Francisco and Santa Monica. Both those locations could, by the year 2100, have a rise in sea level approaching 3 feet, with a 10% probability that it would be higher than that, based on estimates of historic and future sea level change provided by the U.S. Environmental Protection Agency in Titus and Narayanan (1995) "The Probability of Sea Level Rise" (EPA 230-R-95-008). In the Monterey Bay area, the trend for sea level rise for the past 25 years has been an increase resulting in an historic rate of nearly 1 foot per 100 years (NOAA, National Ocean Service), significantly higher than the average historic change recorded at either San Francisco or Santa Monica. This deviation in historic trends between Monterey Bay and both San Francisco and Santa Monica is very likely due to the short duration of the tidal record at Monterey; however, it can also suggest that the localized rise in sea level in Monterey Bay may be higher than what was experienced at either San Francisco or at Santa Monica. Thus the future 100 year-change in mean sea level for Monterey Bay may be higher than the estimated 2.7 feet (for San Francisco) or the estimated 2.85 feet (for Santa Monica), for both of which there is a 10% probability of being exceeded.



the future.

In addition, global warming and sea level rise could cause changes to the storm patterns and wave climate for the entire coast. As water elevations change, the transformation of waves from deep water will be altered, and points of energy convergence and divergence could shift. The new locations of energy convergence would become the new erosion “hot spots” while the divergence points may experience accretion or stability. It is highly likely that portions of the coast will experience more frequent storms and the historic “100-year storm” may occur more often. Historically in the Monterey Bay, the frequency of major storm events has been documented to be roughly two every three years, with the frequency of such storms causing significant damage roughly one every 5 years.¹¹

The Commission’s experience with proposed projects such as this that are located in areas subject to significant coastal hazards has been that development has continued to occur despite periodic episodes of heavy storm damage, landslides, and other such problems. Oceanfront development is susceptible to bluff retreat and erosion damage particularly due to storm waves and storm surge conditions. Past occurrences statewide have resulted in public costs (through low- and no-interest loans, grants, subsidies, direct assistance, etc.) in the multi-millions of dollars. As a means of allowing continued development in areas subject to these hazards while avoiding to the extent feasible placing the economic burden on the people of the state for damages, the Commission has regularly required that Applicants acknowledge a site’s coastal hazard risks, assume the risks for developing in the face of these risks, and agree to waive any claims of liability on the part of the Commission for allowing the development to proceed.

There are inherent risks associated with development on and around beaches and eroding bluffs in a dynamic coastal bluff environment; this applies to the bulkhead seawall as well as to the residential development above and landward of it. The subject site is likely to be affected by shoreline hazards in the future. Although the Commission has sought to minimize the risks associated with the development proposed in this application, the risks cannot be eliminated entirely. Given that the Applicant has chosen to pursue and maintain development at this land-sea interface despite these risks, the Applicant must assume these risks. Accordingly, this approval is conditioned for the landowner to assume all risks for developing at this location and to indemnify the Commission against any claims for damages (see special condition 7).

E. Other Beach Area Development and Public Rights

The property ownership pattern at this location is such that a portion of the sandy beach area seaward of the seawall is held in fee-title by the Applicant. There have been issues at nearby beach areas with similar private fee-title characteristics where inland property owners have posted signs on the beach that restrict public use of it (e.g., most recently at downcoast Beach Drive near Hidden Beach), and have attempted to enforce them (e.g., with private security). The Commission considers the placement of such signs and the implementation of any such use restrictions to be development requiring a coastal development permit from the Commission. Although each case must be evaluated on its own merits and

¹¹ See, for example, *Geologic Investigation Chambers Property* by Rogers E. Johnson & Associates, dated March 31, 2003.



set of facts, it is noted that the Commission is not generally supportive of such signs and use restrictions because, at a minimum: (1) they negatively impact the beach viewshed; (2) they are a physical impediment to beach recreational use; and (3) they interfere with beach recreational use (to greater and lesser degrees depending on the sign text and the nature of the enforcement of it). In this case, the Applicants indicate that there are no such signs nor use restrictions (nor associated enforcement) seaward and/or beachward of the bulkhead seawall, and none are proposed in this application. This approval includes a prohibition on development seaward and/or beachward of the seawall, and thus the existing status quo (without beach area signs, fences, etc) will be maintained as such development will be prohibited in the future (see special condition 7). As a result, there is no issue in this regard with respect to this application.

In any case, there has been a long and steady history of public use of the beach area here. So as not to prejudice any future evaluations on this topic, and so as to avoid a situation where this bulkhead/seawall repair approval was described as resolving any ownership/public use issues, a condition is attached stating that the Commission's approval of this project does not constitute a waiver of any public rights which may exist on the property, and that the Applicants cannot use this approval as evidence of a waiver of same (see special condition 8).

F. Cumulative Impact Issues

Coastal Act Section 30250(a) addresses cumulative impacts, stating in part as follows:

New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located...where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. ...

As indicated previously, the beach the subject site and surrounding areas are significantly armored. Because such armoring fixes the bluff location and prevents natural bluff materials from replenishing the beach, and in light of sea level rise and continuing shoreline erosion, it is expected that the usable beach areas here will continue to narrow over time due in large part to such armoring. This is the phenomenon known as passive erosion.

The mitigations imposed here will alleviate, but cannot completely eliminate, the long-term impacts to the public both as a result of this individual project and the overall cumulative effect of it together with all the other armoring along this stretch of coast. Some of this long term impact was "inherited" by the people of the state due to the fact that much of this stretch of coast was already armored to a certain degree, including the subject site, when the coastal permitting requirements of Proposition 20 and the Coastal Act were instituted in the early 1970s. With the sea level continuing to rise, and the shoreline continuing to erode, it is expected that the beach fronting this revetment, like all California beaches on which armoring is located and on which the back-beach has thus been effectively "fixed" in location, will eventually disappear over time. The State has not to date completely come to grips with this phenomenon, particularly as it relates to existing permitted and pre-Prop. 20/Coastal Act armoring such as this.



At a minimum, additional regional planning (e.g., a specific plan for addressing armoring needs and impacts along this stretch of coastline), regional planning mechanisms (e.g., a shoreline armoring management entity meant to cover the larger shoreline that includes this site), and/or implementation tools (e.g., a systematic approach for identifying and addressing specific armoring impacts) may be necessary. To address cumulative impact issues, the Applicant is required to participate in future planning efforts that involve the seawall here (see special condition 7). Participation in no way binds the property owner to a certain outcome, but ensures that the affected property owner is part of any such future discourse. At this time, the Commission is unaware of any such efforts for this area the County.

G. Other Issues

MBNMS Approval

The project area is sometimes occupied by waters of the Monterey Bay and may require Monterey Bay National Marine Sanctuary approval. The project is conditioned for Sanctuary approval. See special condition 9.

Other Land Owners

Intervening and/or adjacent landowners may need to consent to construction access. The project is conditioned for the consent of other involved land owners in the case of the repair and/or any future maintenance approved here. See special conditions 2 and 6.

Future Notice

The terms and conditions of this approval are meant to be perpetual. In order to inform future owners of the requirements of the permit, and add a level of legal implementation of this fact, this approval is conditioned for a deed restriction designed to record the project conditions against the affected property. See special condition 10.

3. Coastal Act Consistency and CDP Determination Conclusion

Although the proposed project in some ways provides for fairly straight-forward repair, it includes impacts to beach recreational resources that must be properly mitigated, and it must not itself require additional more substantive armoring for the Commission to find the project consistent with the Coastal Act policies cited herein. Thus special conditions are included to define construction parameters, to restore the beach area after construction, to ensure the project is properly monitored and maintained over time, to ensure the concrete surfacing mimics natural landforms to the degree possible, to provide for a native plant vegetated screen across the top of the seawall and privacy wall, to ensure that there will be no current or future seaward encroachment of rock or other development, to require the property owners to assume risks for developing in a shoreline hazard area, and to record these restrictions on the property to ensure that any future landowners are made aware of the requirements applicable to the revetment (see special conditions).

4. California Environmental Quality Act (CEQA)



Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

Santa Cruz County, acting as the lead CEQA agency, exempted this project from CEQA review. In any case, the Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. This staff report has discussed the relevant coastal resource issues with the proposal, and has recommended appropriate suggested modifications to avoid and/or lessen any potential for adverse impacts to said resources. All public comments received to date have been addressed in the findings above. All above Coastal Act findings are incorporated herein in their entirety by reference.

As such, there are no additional feasible alternatives nor feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as modified, would have on the environment within the meaning of CEQA. Thus, if so modified, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).

